

Application No. 10/707,999
Docket No. A4-1719
Amendment dated April 11, 2005
Reply to Office Action of March 9, 2005

REMARKS

In the Office Action of March 9, 2005 (Paper No. 030705), the Examiner stated that the above-identified United States patent application contains claims directed to the following patentably distinct species of the claimed invention: "a) a product containing or comprising polycrystalline chips (claims 1-12 and 17-25) and b) a product consisting essentially of polycrystalline chips (claims 13-16)." The Examiner required that Applicants elect a single disclosed species (a or b) for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. The Examiner explained that none of the claims are generic.

Within species (a) and (b), the Examiner further identified subspecies as follows: in species (a), chips formed of (1) metal, metal alloy and intermetallic materials and (2) ceramic materials; in species (b), matrix materials formed of (1) metal, metal alloy and intermetallic materials, (2) polymeric materials, and (3) ceramic materials. The Examiner required Applicants to elect chips that are made of one of the subspecies (1 or 2) if species (a) or (b) is elected, or to elect a matrix made of one of the subspecies (1-3) if species (b) is elected, for prosecution on the merits.

As an initial matter, Applicants note that in the claims as originally filed, only species (a) (claims 1-12 and 17-25) encompass the presence of a

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matrix. Therefore, the subspecies election requirement should have stated that Applicants must elect chips that are made of one of the subspecies (1 or 2) if species (a) or (b) is elected, and elect a matrix made of one of the subspecies (1-3) if species a is elected.

Election

Applicants hereby elect species (b), on which original claims 13-16 are readable, and Applicants elect subspecies (1), on which original claims 13, 14, and 16 are readable, for prosecution on the merits if no generic claim is held to be allowable. However, in doing so Applicants respectfully request reconsideration of the election requirement in view of the above amendments to the claims and the following remarks.

Applicants respectfully believe that independent claim 1 as now amended is generic, in that the distinction between species (a) and (b) has been eliminated by making the matrix an optional element in claim 1 - "a product consisting essentially of polycrystalline chips" (i.e., without the optional matrix of claim 1) is consistent with independent claim 13; and "a product consisting essentially of polycrystalline chips and . . . a matrix" (i.e., with the optional matrix of claim 1) is consistent with independent claim 17. As a result, both independent claims 13 and 17 fall entirely within the scope of claim 1, such

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that claim 1 is generic. Applicants therefore respectfully request that claim 1 also be examined with elected claims 13-16 corresponding to species (b), such that if claim 1 is finally held to be allowable, both species (a) and (b) will be prosecuted on the merits.

In addition, Applicants respectfully believe that the bases for requiring a species election among subspecies (1) and (2) in species (a) and (b) and among subspecies (1), (2) and (3) in species (a) have also been eliminated by the claims as amended above. Specifically, chips formed from any material of subspecies (1) and (2) are encompassed within the Markush group identically recited in independent claims 1, 13, and 17, and matrices formed from any material of subspecies (1), (2), and (3) are encompassed within the Markush group identically recited in independent claims 1 and 17. According to MPEP §803.02:

Since the decisions in *In re Weber*, 580 F.2d 455, 198 USPQ 328 (CCPA 1978) and *In re Haas*, 580 F.2d 461, 198 USPQ 334 (CCPA 1978), it is improper for the Office to refuse to examine that which applicants regard as their invention, unless the subject matter in a claim lacks unity of invention. *In re Harnish*, 631 F.2d 716, 206 USPQ 300 (CCPA 1980); and *Ex parte Hozumi*, 3 USPQ2d 1059 (Bd. Pat. App. & Int. 1984). Broadly, unity of invention exists where compounds included within a Markush group (1) share a common utility, and (2) share a substantial structural feature disclosed as being essential to that utility.

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Regarding the subspecies of chip materials, Applicants believe that the "compounds" (chip materials) included in the Markush group share a "common utility" and share a "substantial structural feature disclosed as being essential to that utility" on the basis that they all share the common utility of enhancing the mechanical properties (e.g., ductility, formability and resistance to crack propagation) of articles formed therefrom, and they all share the structural feature of having nanocrystalline microstructures that Applicants disclose as being essential to that utility. See paragraph [0003] of the application.

Regarding the subspecies of matrix materials, Applicants believe that the "compounds" (matrix materials) included in the Markush group share a "common utility" and share a "substantial structural feature disclosed as being essential to that utility" on the basis that they all share the common utility of providing a matrix in which the chips can be dispersed and they all share the structural feature of having processing parameters that do not detrimentally anneal the nanocrystalline chips, which Applicants disclose as being essential to that utility. See paragraphs [0042] and [0043] of the application.

In view of the above, Applicants believe that, under MPEP §803.02, unity of invention is established for chips formed of any of the materials recited in independent claims 1, 13, and 17, and unity of invention is established for matrices formed of any of the materials recited in independent claims 1 and 17.

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For the above reasons, with respect to elected species (b) and its corresponding claims 13, 14, and 16, Applicants respectfully request that dependent claim 15 also be examined.

In summary, Applicants believe that the claims as now amended support the examination of at least claims 1 and 13-16 on the merits. Should the Examiner have any questions with respect to any matter now of record, Applicants' representative may be reached at (219) 462-4999.

Respectfully submitted,

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